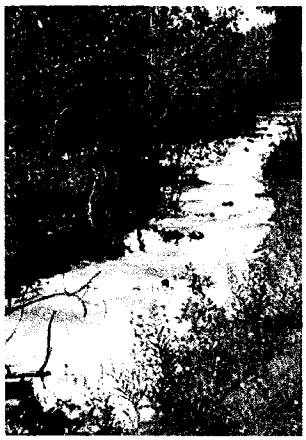
EXHIBIT 9
DATE Jan. 21, 2011
ENVIRONMENTAL QUALITY

MONTANA DEQ

# SAND COULEE FACT SHEET

**SAND COULEE PUBLIC WATER SUPPLY RESTORATION, CASCADE COUNTY**

**MINE WASTE CLEANUP BUREAU, ABANDONED MINE SECTION** **January 2011**

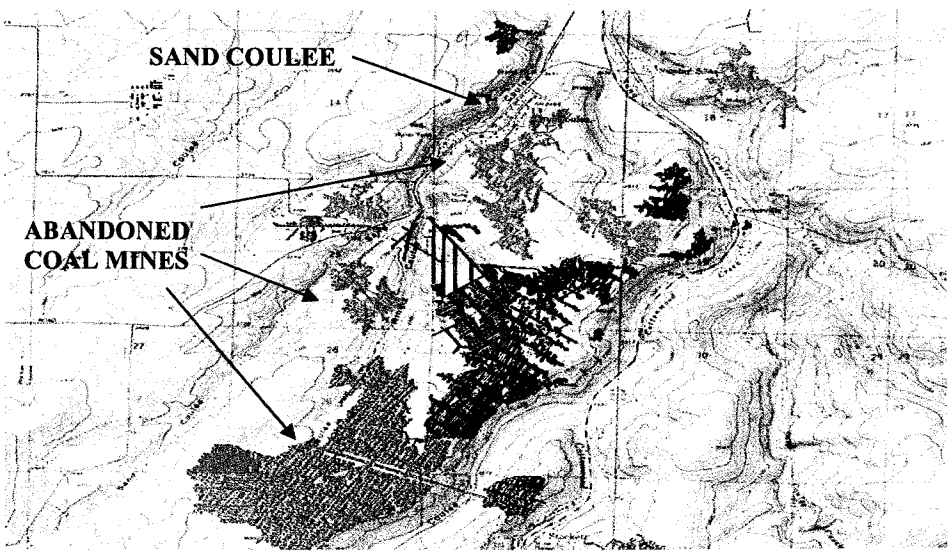


## PROJECT BACKGROUND

From the 1880s to the early 1900s, the Great Falls Coal Field was the leading coal producing area in Montana. Extensive underground coal mines were developed in the hillsides surrounding the community of Sand Coulee. The Sand Coulee Mine was developed by an affiliate of the Great Northern Railway Company. During its most active period, 1889 to 1898, the Sand Coulee Mine was responsible for over 50 percent of the 7 million tons of coal mined in Cascade County, which at this time produced over 55 percent of Montana's coal output. Coal production from the Sand Coulee Mine diminished following the turn of the century. Acidic water drainage from the mine polluted Sand Coulee Creek and the underlying aquifer. The presence of the contaminated surface water and groundwater in the vicinity of Sand Coulee has limited the options available for the supply of potable water required by the residents.

## PROJECT LOCATION

Sand Coulee is located approximately 15 miles south of Great Falls, Montana, in Cascade County. The community is located along a county collector road between State Secondary Routes 227 and 226 in Sections 13 and 14, Township 19 North, Range 4 East.

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# PROBLEM DESCRIPTION

The community has historically relied on potable water pumped from an aquifer overlying the Morrison Formation from which the mines extracted coal. However, the subsiding mine workings have partially dewatered this aquifer. The Sand Coulee water system services 73 single family residences year round. The system does not produce the quantity of water specified by DEQ regulations. With the largest well out of service, the remaining well can only produce 36 percent of the maximum daily demand for the present population. Water shortages have resulted in water rationing and the need to haul water from an off-site source. The water is distributed to the community using thin-walled plastic water main lines, which were placed in areas filled with coal waste. Granular coal and/or coal waste materials have accumulated in the water lines. These materials can provide a substrate supporting bacteria growth in the distribution system. Routine water quality monitoring has identified total coliform bacteria in approximately 20 sampling events since 1995.

Morrison Coal Seam

# PROPOSED RECLAMATION

The proposed work will focus on the identification and development of a reliable source of potable water for the Sand Coulee Water District that has not been impacted by the historic coal mining activities. Following the development of the water supply, water quality concerns associated with the coal wastes in the existing water distribution system will be mitigated by replacing the existing distribution system using DEQ-compliant construction, and removing coal wastes as necessary to ensure that the distribution system does not contact coal wastes. In this fashion, an adequate quantity of water of acceptable quality will be provided to the community.

Sand Coulee mid-1890s

# BENEFITS OF RECLAMATION

The project will provide the community with a long-term source of potable water and eliminate the exposure to coal wastes in the water distribution system. This work will eliminate water shortages, which have historically impacted Sand Coulee. The development of a reliable water source will assist the community in fire suppression activities and support future growth of the community. The project may also result in significant mitigation of health-related consequences to the community. Reclamation activities will also benefit Montana's economy by providing engineering and construction jobs.

Acid mine drainage near Sand Coulee